

We claim:

1. A method for establishing relationships between multiple data items in a computer, comprising the steps of:

creating a graphical representation of at least one data classification cluster Master Facet, said Master Facet utilized for clustering a plurality of related data items;

defining attributes of said Master Facet;

creating a graphical representation of a plurality of data items;

defining attributes of each of said plurality of data items;

clustering a subset of related data items of said plurality of data items under said Master Facet;

displaying visually said clustering of said subset of related data items;

associating at least one data item of said plurality of data items under said Master Facet with another data items by forming a relationship between said data items;

defining attributes of said relationship and perceived logical connection between said data items; and

displaying visually said relationship between said logically connected data items for which the relationship is defined.

2. The method of Claim 1, wherein the steps of associating at least one data item of said plurality of data items under said Master Facet with another data item by

forming a relationship between said data items and specifying said logical connection between said data items are arbitrarily defined by a user, based on user's perception of the connection between said items.

3. The method of Claim 1, further comprising the step of displaying at least partial content of said Master Facet when the attributes of said Master Facet are defined.

4. The method of Claim 1, further comprising the step of displaying at least partial content of at least one of said plurality of data items when the attributes of said data item are defined.

5. The method of Claim 1, further comprising the step of displaying at least partial content of at least one of said plurality of data items that are associated with each other when said attributes of the relationship between the associated data items are defined.

6. The method of Claim 1, further comprising the step of displaying visually every relationship defined for each data item clustered under a Master Facet.

7. The method of Claim 6, wherein each visual representation of a relationship defined for each data item clustered under a Master Facet may be independently selected by the user for analysis.

8. The method of Claim 1, further comprising the steps of

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associating at least one data item of said plurality of data items in a subset clustered under the same Master Facet with another data item clustered under the same Master Facet by forming a relationship between said data items;

defining attributes of said relationship and perceived logical connection between said data items; and

displaying visually said relationship between said logically connected data items for which the relationship is defined;

wherein said logical connection between said data items is other than the fact of being clustered under the same Master Facet.

9. The method of Claim 8, further comprising the step of displaying visually every relationship defined for each data item with other data items clustered under the same Master Facet.

10. The method of Claim 9, wherein each visual representation of a relationship defined for each data item with other data items clustered under the same Master Facet may be independently selected by the user for analysis.

11. The method of Claim 1, further comprising the steps of:

associating said Master Facet with another Master Facet by forming a relationship between said Master Facets;

defining attributes of said relationship and perceived logical connection between said Master Facets; and

displaying visually said relationship between said logically connected Master Facets for which the relationship is defined.

12. The method of Claim 11, further comprising the step of displaying the content of at least one of said Master Facets that are associated with each other when said attributes of the relationship between them are defined.

13. The method of Claim 11, further comprising the step of displaying visually every defined relationship between said Master Facet and other Master Facets.

14. The method of Claim 13, wherein each visual representation of a defined relationship between said Master Facet and other Master Facets may be independently selected by the user for analysis.

15. The method of Claim 1, further comprising the step of browsing through the list of data items accessible to the user's computer in order to define the attributes of at least one said data item.

16. The method of Claim 1, further comprising the step of viewing at least partial content of at least one data item while displaying visually the relationship link between said data item and at least one other data item.

17. The method of Claim 11, further comprising the step of viewing at least partial content of a Master Facet while displaying visually the link between said Master Facet and at least one other Master Facet.

18. The method of Claim 1, wherein the executable instructions for carrying out the steps of the invention reside on a local computer of the user.

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19. The method of Claim 1, wherein the executable instructions for carrying out the steps of the invention reside on a network to which the local computer of the user is connected.

20. The method of Claim 1, wherein said data items comprise a plurality of heterogeneous multimedia data objects.

21. The method of Claim 1, wherein at least one of said plurality of data items is an audio file.

22. The method of Claim 1, wherein at least on of said plurality of data items is a digitized video file.

23. The method of Claim 1, wherein at least one of said plurality of data items is an image file.

24. The method of Claim 1, wherein at least on of said plurality of data items is an HTML file.

25. The method of Claim 1, wherein at least on of said plurality of data items is a text file.

26. The method of Claim 1, wherein at least one of said plurality of data items is associated with a particular application.

27. The method of Claim 1, wherein at least one of said plurality of data items is a database object.

28. The method of Claim 1, further comprising the step of representing a plurality of different types of data item attributes visually and allowing the user to assign said attributes to at least one data item.

29. The method of Claim 28, wherein said plurality of different types of data item attributes are represented as icons, and said step of assigning one of said attributes to at least one data item comprises dragging one of said icons and dropping it into a visual representation of said data item.

30. The method of Claim 1, further comprising the step of representing a plurality of different types of attributes for data classification clusters visually and allowing the user to assign said attributes to at least one Master Facet.

31. The method of Claim 30, wherein said plurality of different types of data attributes for data classification clusters are represented as icons, and said step of assigning one of said attributes to at least one Master Facet comprises dragging one of said icons and dropping it into a visual representation of said Master Facet.

32. The method of Claim 1, further comprising the step of representing a plurality of different types of attributes for the relationships and allowing the user to assign said attributes to at least one relationship.

33. The method of Claim 32, wherein said plurality of different types of attributes for the relationships are represented as icons, and said step of assigning one of said attributes to the relationship comprises dragging one of said icons and dropping it into a visual representation of said relationship.

34. The method of Claim 1, further comprising the steps of analyzing the existing relationships between data items by an expert-system software component and the step of assisting the user in defining the attributes of a new relationship between said data items based on the data acquired from said analysis of said other existing relationships.

35. The method of Claim 34, further comprising the step of interactive communications between said expert-system software component and the user, wherein at least one attribute and the nature of at least one relationship between data items that are suggested by the expert-system are at least partially based on a response given by the user.

36. The method of Claim 35, wherein the selection of at least one question presented to said user by said interactive expert system component is at least partially dependent upon a prior response given by said user.

37. The method of Claim 1, wherein the Master Facets, data items and relationships are visually depicted in a tree format.

38. The method of Claim 1, wherein the data items and relationships are visually depicted and organized in a scroll format.

39. The method of Claim 1, wherein at least one relationship defined by the user is stored in a scratch pad memory.

40. The method of Claim 1, wherein at least one data item is stored in a temporary memory "coral" for connection to other data items at some later time.

41. A Graphical User Interface for a computerized system utilized for creating, retrieving, depicting and managing a plurality of data items comprising:

a graphical representation of at least one data classification cluster Master Facet for clustering a plurality of related data items, said Master Facet having a plurality of attributes defined by a user,

a graphical representation of a plurality of data items, each said item have a plurality of attributes defined by the user, wherein a subset of said plurality of data items is clustered under said Master Facet,

a graphical representation of a relationship between at least one data item of said Master Facet with at least one other data item of another Master Facet, said relationship having a plurality of attributes defined by the user,

wherein the relationship and logical connection between said data items are arbitrarily defined by the user, based on user's perception of the connection between said items.

42. The system of Claim 41, wherein at least partial content of at least one of said plurality of data items is displayed when the attributes of said data item are defined.

43. The system of Claim 41, wherein at least partial content of the Master Facet is displayed when the attributes of the Master Facet are defined.



44. The system of Claim 41, wherein at least partial content of at least one of said plurality of data items that are associated with each other is displayed when said attributes of the relationship between the associated data items are defined.

45. The system of Claim 41, further comprising a graphical representation of every relationship that is defined for each data item clustered under a Master Facet, wherein each said relationship may be independently selected by the user for analysis.

46. The system of Claim 41, further comprising a graphical representation for a relationship between at least one data item of said plurality of data items in a subset clustered under the same Master Facet with another data item clustered under the same Master Facet, said relationship having a plurality of attributes defined by the user,

wherein said logical connection between said data items is other than the fact of being clustered under the same Master Facet.

47. The system of Claim 46, further comprising a graphical representation of every relationship defined for each data item with other data items clustered under the same Master Facet, wherein each said relationship may be independently selected by the user for analysis.

48. The system of Claim 41, further comprising a graphical representation for a relationship between said Master Facet and another Master Facet, said relationship having a plurality of attributes defined by the user, wherein said relationship and logical connection between said Master Facets are arbitrarily defined by the user, based on user's perception of the connection between them.

49. The system of Claim 48, wherein the content of at least one of said Master Facets that are associated with each other is displayed when said attributes of the relationship between them are defined.

50. The system of Claim 48, wherein every defined relationship between said Master Facet and other Master Facets is graphically displayed and may be independently selected by the user for analysis.

51. The system of Claim 41, wherein a list of data items accessible to the user's computer may be browsed when the attributes of at least one said data item are being defined.

52. The system of Claim 41, wherein at least partial content of at least one data item may be viewed while the relationship link between said data item and at least one other data item is displayed visually.

53. The system of Claim 48, wherein at least partial content of a Master Facet may be viewed while the relationship link between said Master Facet and at least one other Master Facet is displayed visually.

54. The system of Claim 41, wherein said data items comprise a plurality of heterogeneous multimedia data objects.

55. The system of Claim 41, wherein at least one of said plurality of data items is an audio file.

56. The system of Claim 41, wherein at least on of said plurality of data items is a digitized video file.

57. The system of Claim 41, wherein at least one of said plurality of data items is an image file.

58. The system of Claim 41, wherein at least on of said plurality of data items is an HTML file.

59. The system of Claim 41, wherein at least on of said plurality of data items is a text file.

60. The system of Claim 41, wherein at least one of said plurality of data items is associated with a particular application.

61. The system of Claim 41, wherein at least one of said plurality of data items is a database object.

62. The system of Claim 41, further comprising a graphical representation of a plurality of different types of data item attributes for assigning to data items.

63. The system of Claim 62, wherein said plurality of different types of data item attributes are represented as icons, wherein at least one of said attributes may be assigned to a data item by dragging and dropping it into a visual representation of said data item.

64. The system of Claim 41, further comprising a graphical representation of a plurality of different types of data item attributes for assigning to data classification clusters.

65. The system of Claim 64, wherein said plurality of different types of data classification cluster attributes are represented as icons, wherein at least one of said

attributes may be assigned to a Master Facet by dragging and dropping it into a visual representation of said Master Facet.

66. The system of Claim 41, further comprising a graphical representation of a plurality of different types of attributes that may be assigned by the user to at least one relationship.

67. The system of Claim 66, wherein said plurality of different types of attributes for the relationships are represented as icons, wherein at least one of said attributes may be assigned to a relationship by dragging and dropping it into a visual representation of said relationship.

68. The system of Claim 41, further comprising an expert-system software component for analyzing the existing relationships between data items and assisting the user in defining the attributes of a new relationship between said data items based on the data acquired from said analysis of said other existing relationships.

69. The system of Claim 68, wherein the expert-system software interacts with the user, and at least one attribute and the nature of at least one relationship between data items that are suggested by the expert-system are at least partially based on a response given by the user.

70. The system of Claim 69, wherein the selection of at least one question presented to said user by said interactive expert system component is at least partially dependent upon a prior response given by said user.

71. The system of Claim 41, wherein the Master Facets, data items and relationships are visually depicted in a tree format.

72. The system of Claim 41, wherein the data items and relationships are visually depicted and organized as a scroll.

73. The system of Claim 41, wherein at least one relationship defined by the user is stored in a scratch pad memory.

74. The system of Claim 41, wherein at least one data item is stored in a temporary memory "coral" for connection to other data items at some later time.

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